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O'Brien Elected Executive Vice President

Expected to succeed Skurla as president in August; Myers named Data Systems President

John O'Brien has been elected executive vice president of Grumman Corporation. He is expected to succeed George Skurla as president when Skurla retires on August 1, 1986.

O'Brien had been president of the Data Systems Division. Bob Myers, senior vice president and head of the Services Division, becomes president of Data Systems. In addition to his other duties, O'Brien will head the Services Division during this interim period.

"John O'Brien's extensive experience in the aerospace business and his leadership in setting Data Systems on a path of sales and earnings growth make him well qualified to lead Grumman during the coming years of change and growth," says Grumman chairman Jack Bierwirth.

"He is a fitting successor to George Skurla. George devoted over 40 years to the company and brought his management talents to bear on programs such as the U. S. Navy's F-14 Tomcat fighter and NASA's Apollo Lunar Module. George's contributions benefited not only the company but the entire country."

John O'Brien

George Skurla

O'Brien joined Grumman in 1954 as a flight test analyst. In 1970, he was elected administrative vice president of Grumman Aerospace, and in 1975, senior vice president, Administration and Resources.

He was named executive vice president for internal operations in 1979, and was appointed president of Grumman Data Systems Corporation in 1983, a post he kept when that Grumman subsidiary became a division.

In January of this year, he was elected to the Grumman board of directors.

Skurla joined Grumman in 1944 as an apprentice engineer. He went on to hold a variety of positions — liaison engineer, stress analyst, and positions in Research and Structural Flight Test. After working on the F9F and F11F series, he was named chief engineer for Aerobilt Bodies, as Grumman's truck-body operation was then known.

Later he was director of Grumman's operations at the Kennedy Space Center during the Apollo program; general manager of operations at Calverton, Long Island; and president of the Grumman Aerospace Corporation subsidiary.

In February 1985, when Grumman organized into divisions instead of subsidiaries, Skurla was elected president of the Corporation. He reaches the company's mandatory retirement age of 65 in July.

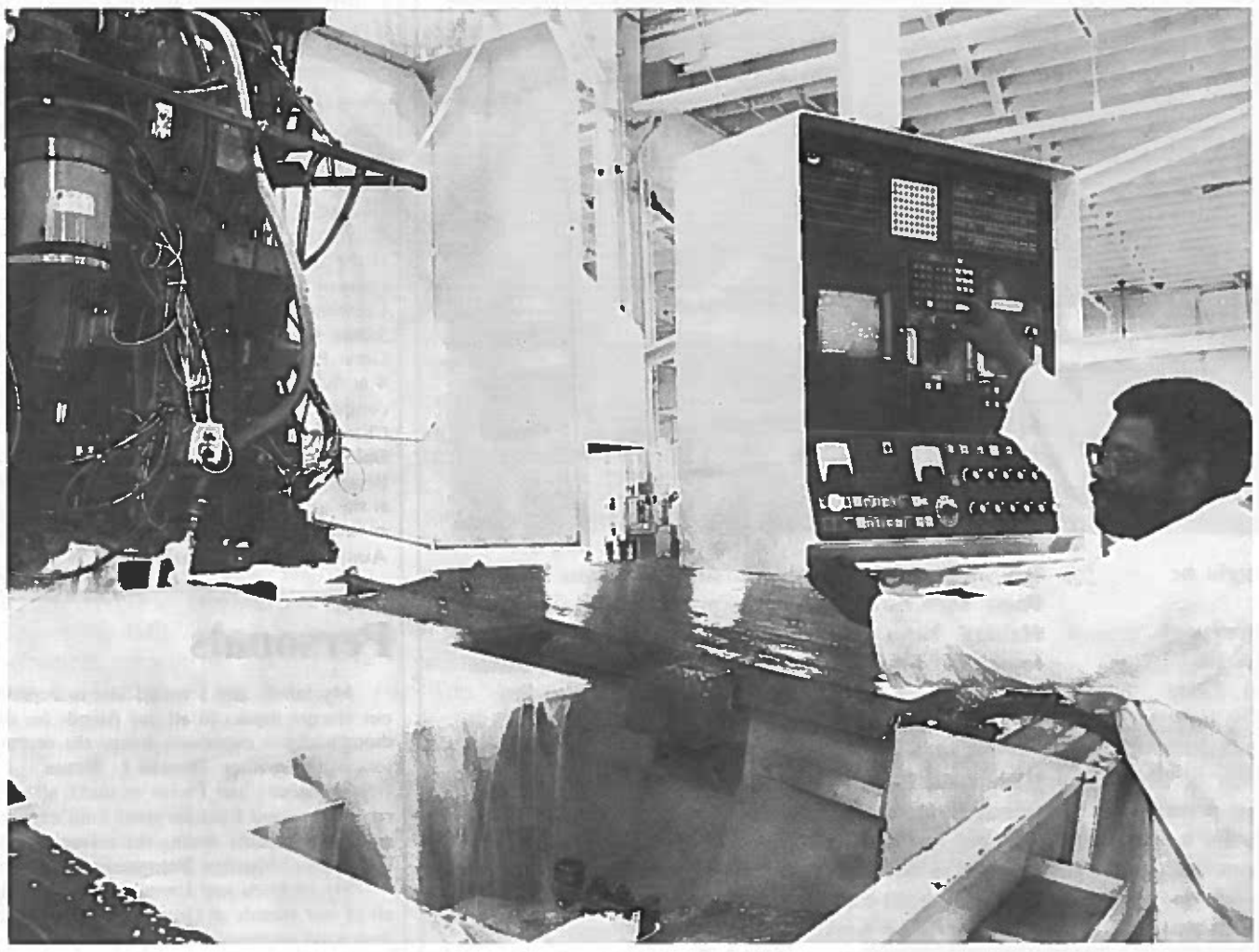
Bob Myers joined Grumman in 1957 as an administrator in the Engineering Department. He left Grumman in 1961 to become a division controller/administrator for Giannini Controls Corporation, then returned in 1964 as program control manager for the Apollo Lunar Module program.

Bob Myers

He later served as director of Planning, Control and Budgets, and as director—Administration and Resources.

In 1980, he was elected vice president—Business and Resource Management for Grumman Aerospace before being elected senior vice president of resources for the former subsidiary.

When the company was reorganized last year, he was named to head the Services Division. The division provides commonly used administrative and business services to the entire corporation. ■



The Cutting Edge Of Manufacturing. *Out to produce quality detail parts more efficiently, Aircraft Systems recently opened a numerically-controlled Aluminum Profiling Cell in Building 3, Bethpage. Above, Bob Williams puts one of the cell's two new Trumpf routers to work. This machine cuts the flat outlines of detail parts from stacked sheets of aluminum. The router also arranges the layout of the parts to get the most from each sheet of aluminum. Its cutting motions are computer-controlled. (Photo by Bob Settles)*

What's Inside

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Peace Of Mind On The Road And Comfort In The Cockpit

Patents Issued To Two Grummanites For Inventions

Everyone at one time or another has thought about inventing something — whether a brand-new product or changing a present one.

Two Grummanites who followed their hunches were recently issued patents — Warren Anderson who invented a trailer brake test system; and Armand Aronne, for a comfort system for flight suits.

The brake test system is not only Anderson's first invention. It is also the first patent for Grumman Olson. Anderson, an 18-year Grummanite, is manager of Design Engineering at Olson in Sturgis, Michigan. Under a contract with Frito Lay in 1982, the Allied division built the Kubemaster trailer equipped with electric brakes.

However, there was one problem — the driver could not test the effectiveness of the trailer's braking system. "Unlike hydraulic brakes which can be tested by depressing the brake pedal, there was no way to test self-actuating electric brakes," Anderson says.

He invented a failsafe test system for the brakes. Now, the driver can be sure that they're working before he goes anywhere just by pressing a button on the dashboard. This energizes the system and activates a gauge indicating if the brakes are effective, working properly, or short circuiting.

Since 1983, Grumman Olson has installed the system in 1,200 trailers.

Armand Aronne, a 44-year Grumman employee, is principal engineer and head of Escape, Seats and Survival technology for Grumman Aircraft Systems in Bethpage. His invention provides comfort to Grumman fighter plane pilots, who must endure long hours of flying. It is an appendage to the pilot's G-suit — the garment that prevents the flyer from blacking out during maneuvers.

"The pilot gets 'dead fanny syndrome' on a 9-hour flight," says Aronne. "A pilot in an F-14 can't get up and stretch — he's trapped in the cockpit."

With this addition to the G-suit, pressurized air is pumped in by three valves, improving circulation to the pilot's lower body. Another air valve hooked up to the timer is for the primary function of the G-suit — to prevent the pilot from blacking out. When the pilot pulls the plane's nose up, air is automatically pumped into the suit. This prevents the pilot's blood from going to his lower extremities.

A Navy contract for the comfort addition to the G-suit is pending. ■

Premier Patent. *The first patent issued to the Allied Olson Division was the brainstorm of Walter Anderson, who works in Sturgis, Michigan. Anderson designed a failsafe test system for Kubemaster trailer brakes.*

Comfort Suit. *Armand Aronne's invention provides comfort for fighter pilots on long flights. His invention is attached to the pilot's G-suit (R).*

Ferdman Named Vice President - Electronics Systems

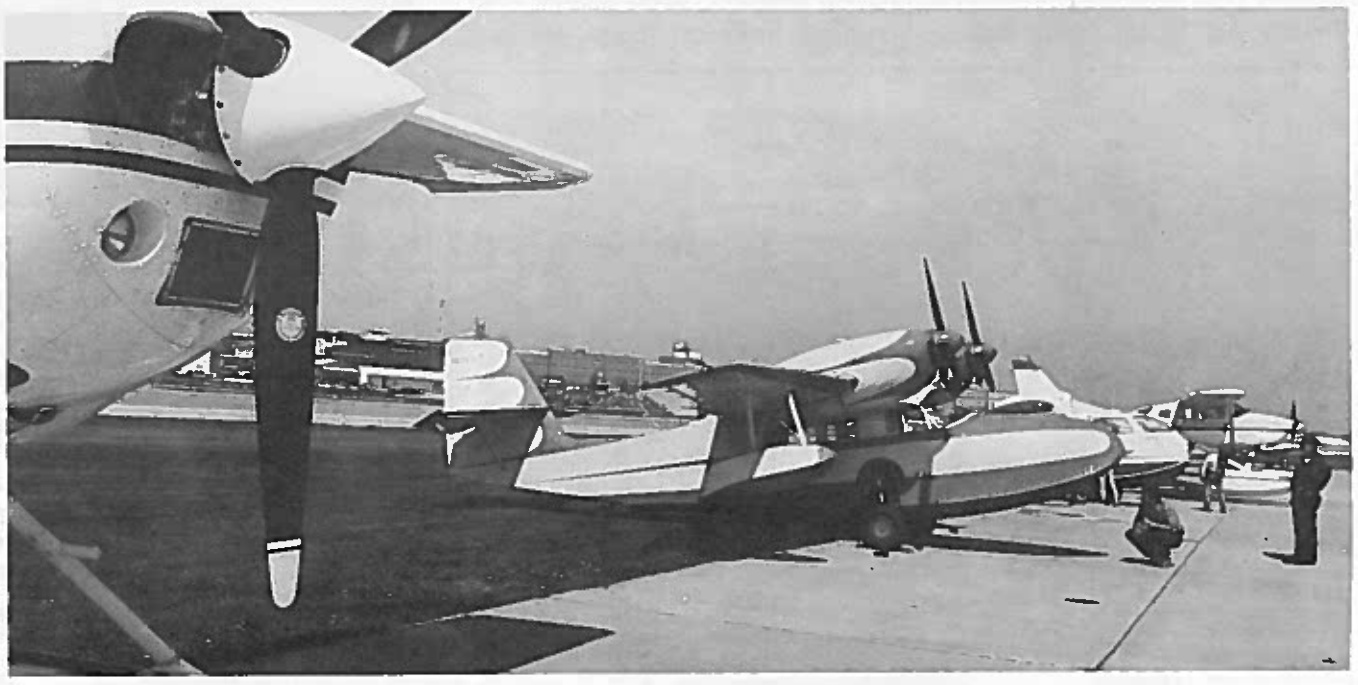
The Grumman board of directors has appointed Saul Ferdman vice president — Planning and Development for the Electronics Systems Division.

Ferdman most recently had been vice president for Marketing — U.S. Postal Service for Grumman's Allied Division.

A Grummanite since 1951, Ferdman began his career as a structural flight engineer. He later held key management positions in Grumman's space programs. In 1977, he was named director of Government Marketing for Grumman Allied.

In 1979, the board elected him vice president of Government Marketing for Allied.

A Flying Tribute To Naval Aviation



If not for the two Cessnas, this photo might be mistaken for one from the late 1940's.

The twin-engine Widgeon in the center was built by Grumman in 1946, and now flies for Thompson Industries of Port Washington, Long Island. The plane to its right is a Sea Bee built by Republic Aviation in 1947.

However, this photo was taken on May 6, 1986, at Grumman's airfield in Bethpage. These privately-owned amphibians were being readied to fly to Rockaway, New York, for a ceremony commemorating the first transatlantic flight. It's one of many events honoring Naval Aviation's 75th anniversary this year.

It was in 1919 that three U.S. Navy flying boats, NC-1, NC-3 and NC-4, set off on what came to be known as the "Great Flight." At 10:02 a.m. on May 8 of that year, they took off from Jamaica Bay, followed Long Island's south shore to Montauk Point, then turned towards Cape Cod and on to Halifax, Nova Scotia. Next, they stopped in Newfoundland for service before flying the 1,206 miles to the Azores. From there it would be on to Portugal, France and Plymouth, England.

NC-4 was the first to make it to Plymouth. Its flight took 24 days — 53 hours and 58 minutes of actual flying time.

But not far from the Azores, NC-1 and NC-3 got lost in heavy fog and set down in the ocean. There were 10-foot seas that day, and neither could take off. NC-1 broke up and sank, its crew rescued by a passing freighter. NC-3 floated into the Azores and, after repairs, went on to England.

Sixty years after the "Great Flight," NC-4 is on display at the Naval Air Museum in Pensacola, Florida.

Obituaries

Gerard R. DiLeone of F-14 Modification, Calverton, Aircraft Systems died April 21 at the age of 53. He had been with the company since 1967 and resided at 146 Hill Crescent, Calverton, N.Y.

James P. Dunn of Avionics Systems Test, Great River, Electronic Systems died April 4 at the age of 27. He had been with the company since 1978 and resided at 99 Chateau Dr., Oakdale, N.Y.

Daley O. Price of Quality Laboratory, Bethpage, Aircraft Systems died March 20 at the age of 52. He had been with the company since 1962 and resided at 3 August Crescent, Commack, N.Y.

Personals

My family and I would like to express our sincere thanks to all our friends for the thoughtfulness expressed during the recent loss of my mother. **Donald L. Reuss**

My family and I wish to thank all my co-workers and ESO for their kind expressions of sympathy during the recent loss of my mother. **Marilyn Pomponio**

My children and I would like to thank all of our friends at Grumman and ESO for their kind expressions of sympathy during the recent loss of my wife Barbara. **Jerry Eich**

My family and I wish to express our sincere thanks to my co-workers and ESO for their kind expressions of sympathy during the recent loss of my father. **Marilyn Bunzel**

Grumman Offers British A Nimrod Alternative

For over a decade, the British have been developing an airborne early warning system to be placed in surplus maritime reconnaissance Nimrods for the Royal Air Force. Nimrods are military versions of the British airliner called the Comet.

A number of problems have plagued the project, so the Defense Ministry asked U.S. aerospace firms specializing in airborne early warning to submit proposals for a replacement.

On May 8, Grumman delivered its proposal which includes three options: the current production E-2C Hawkeyes; an advanced E-2C version of which development is well underway; and British Nimrods outfitted with E-2C systems including the distinctive rotodome. Boeing and Lockheed have also submitted proposals to the British.

Development difficulties over many years have made it necessary for the British government to review and hold another competition on the whole question of AEW, command and control for the United Kingdom. Nimrod will be part of this competition.

In September, the Defense Ministry will decide whether to select one of the U.S. firms to build a new airborne early warning plane or to stay with the Nimrod.

"Pound for pound, the Grumman Hawkeye is the most advanced airborne early warning system in the world," says E-2C Program Vice President Jim Philbin. "It is the only aircraft in the competition that is designed and developed exclusively for the airborne early warning mission."

If the British elected to purchase production Hawkeyes, delivery would take place in 1990. However, the British want their AEW aircraft to fly long distances offshore and remain on station for extended periods of time. Production E-2Cs have a limited capability for this mission, so Grumman has proposed equipping Hawkeyes with inflight refueling capabilities. "Grumman's C-2A Greyhounds which have an airframe similar to the E-2C have already been tested with an inflight refueling system," says Philbin, "so there would be no problem extending the flying time of the Hawkeye."

Grumman's third option is probably the most attractive to the British: integrating key Hawkeye systems into the Nimrod. "Right now, the RAF has 11 Nimrods ready to accept the GEC radar," says Andy Bradick, director of defense programs for Grumman International. "People have been trained, the ground support systems are in place."

As systems integrator with a British partner, Grumman would outfit the Nimrod with the E-2C's computer, radar and other systems — including the rotodome. "Integrating systems — particularly the complex systems found in the E-2C — is an extremely complicated task," says Philbin. "But it is one of Grumman's strongest capabilities." It's the computer associated software that makes the Hawkeye's sophisticated systems tick, and Grumman holds the key.

The United Kingdom Ministry of Defense is seeking airborne early warning (AEW) capability. Britain is developing the Nimrod for the AEW role but is also looking at other options. Grumman has proposed the E-2C, and, as a second alternative, has offered to modify the Nimrod airframe to accept certain E-2C system components. An artist's concept of the Nimrod with an E-2C radome is shown.

"Grumman has been the prime contractor for billions of dollars of aircraft systems development for 25 years while building its reputation as a systems integrator," says Bradick. "Integrating the Hawkeye systems into the Nimrod would be an ideal, cost effective alternative for the British. They get a Nimrod equipped with the latest AEW system at a low cost with little risk involved."

Bradick also notes that this proposal is politically attractive. "It would still be a British plane. The investment already made in Nimrod would not be lost."

There are other beneficial factors. The Hawkeye radar operates in the UHF band which is ideal for detecting small, lowflying missiles at long range. In addition, the U.S. Navy and Grumman are constantly updating the entire AEW system to meet the ever-changing threats.

Aside from the incumbent GEC, Grumman also faces competition from Boeing's E-3 Sentry AWACS, which is now in service with the U.S. Air Force and several NATO countries, and from the Lockheed P-3 Orion which is in the early stages of systems development. ■

Going To Where The Engineers Are

Aircraft Systems opens engineering work annex in Houston, Texas

There is a shortage of experienced engineers on Long Island, so Grumman is bringing some work to where they are.

In Houston, Texas, 15 engineers are at work on E-2C, F-14 and F-111 AMP (Avionics Modernization Program) projects in an engineering annex opened by the Aircraft Systems Division's Engineering Department.

Engineering expects to staff the annex with about 50 engineers by the middle of this summer.

"It's been very difficult to attract experienced engineers to Long Island. The competition for engineers is intense here. There just aren't enough of them to go around," says Will Bischoff, vice president of Technical Operations. "The Houston annex will help fill the shortage. If it is successful, we might set up similar offices in other locations where engineering talent is available."

The Houston team will be working on system and software engineering projects — work that does not require major investments in laboratory or test equipment.

Hardware design and development engineering will be done on Long Island where the company has the necessary labs. However, the Houston engineering team will eventually have access to Grumman's network of engineering computer systems via satellite and landline links.

The region offers a huge pool of engineering talent due to the depressed oil industry.

Grumman Corporation Southwest Region director Jack Buxton says there was a phenomenal response to a "blind" employment ad — one that didn't name Grumman — that ran in Texas papers last November. "We received 1,600 responses," says Buxton, "and over 200 of them were from people qualified for our type of work."

The new engineers will work just across the street from the Johnson Space Center in a Grumman building occupied for the past several months by Buxton's staff. ■

A Stone's Throw Away. *Aircraft Systems' Engineering Department recently opened an engineering annex directly across the street from NASA's Johnson Space Center in Houston, Texas.*

Cracking Down On Drug Abuse

Drug abuse has been a subject of national concern for two decades now. But while in the '60s it was a counterculture phenomenon, drug abuse has moved into the mainstream.

Alarmed by the trend, many employers, including Grumman, have begun employee assistance programs. These programs counsel employees on a variety of problems, including drug abuse. But some employers have realized that's not enough.

Starting June 1, Grumman Corporation will begin a drug testing program. All job applicants will be asked to provide a urine sample for drug testing as part of their routine pre-employment medical exam. Grumman will only require tests of current employees when there are indications that drugs are impairing their work performance.

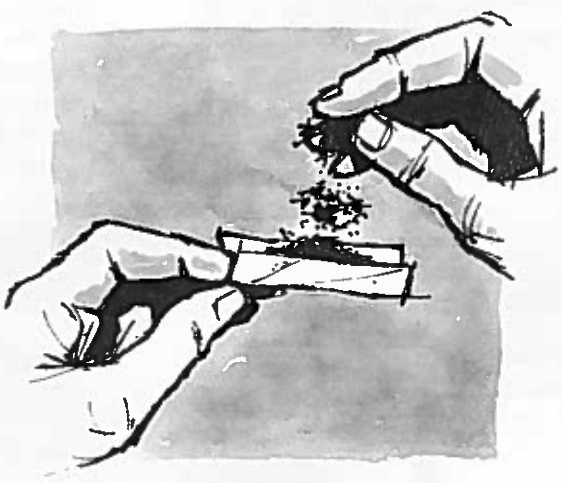
"We're not making moral pronouncements here," says Grumman Vice President and Secretary Bob Bradshaw. "People who are under the influence of drugs just don't function well on the job."

Bradshaw says drug abuse has not been a big problem at Grumman, due in part to the age of the average Grummanite (42). Nevertheless, the company hasn't gone completely unscathed: There have been several drug busts inside the company gates. And there are other common-sense reasons for deterring drug-using job applicants and discouraging drug use among present employees.

In the workplace, Grummanites work with an array of equipment and materials that can become dangerous to less-than-alert employees.

A National Institute on Drug Abuse study found that employees who use drugs are at least one-third less productive than their co-workers, three times more likely to be injured, and are absent from work far more often.

Bradshaw points out that one of the drug busts was initiated by a letter to Grumman management from disgruntled co-workers. "Drug abusers don't pull their own weight and the people who have to work with them resent it," says Bradshaw.



Drug abuse has been detected among new hires. In one extreme case, a new employee was admitted to Brunswick Hospital's drug treatment program after working for a matter of weeks.

Other studies show that to support expensive drug habits, users sell drugs to co-workers and steal money, material or equipment from the company. And cocaine users in particular are vulnerable to spies eager to buy company and government secrets.

The Reagan Administration's Commission on Organized Crime recently recommended that all companies begin drug testing to reduce illicit drug use and to reduce profits by organized crime. The commission also advised the government to withhold contracts from companies that don't have drug testing programs.

The Armed Forces test for drugs. Surveys estimate one-quarter to one-third of the nation's largest companies now have drug testing programs. They include such giants as IBM, Consolidated Edison, the New York Times, DuPont, and 85-95 percent of aerospace companies.

Since Grumman hires from the same pool of job applicants as its aerospace competitors, without a drug testing program the company would run the risk of hiring drug abusers who flunked their tests at other companies.

Although drug testing has become controversial, courts have upheld testing given to job applicants — and to existing employees, when an employer could prove reasonable suspicion of drug abuse.

Bradshaw says there are other methods of drug testing — such as taking blood, hair, or saliva samples. "We considered the urine tests the least invasive of a person's privacy," he says, explaining that job applicants already provide a urine sample during their pre-employment checkup. The sample is now tested for diabetes, urinary disorders, and infections; these tests will continue.

Beginning June 1, part of an applicant's sample will be shipped by Federal Express to a private laboratory in North Carolina — the same lab that does drug testing for the military.

Bradshaw says the person's privacy will be assured except in extremely rare circumstances. "The company will reserve the right to have Medical personnel present when the person provides the sample, in cases where someone is overwhelmingly suspected of drug abuse and might go to great lengths to falsify the sample."

The three-part test regimen reveals a wide variety of drugs, including marijuana, barbiturates, Quaalude, cocaine, heroin, amphetamines, and hallucinogens.

"We've been told by the lab to expect upwards of 15 percent positive on the East and West Coasts," says John Brody, manager of Health Services for Grumman's Medical Department. "In some areas, the lab finds much higher results — such as a test it recently did for a Florida transit authority where 80 percent tested positive. In Midwest states such as Iowa, the results are usually lower than average."

All applicants will be advised of the company's policy when they apply for jobs at Grumman. They'll also sign a consent form when they take the test. Those who test positive, as well as those who refuse to take the test, will be denied employment.

"Somebody could be the most highly sought-after type of engineer," says Bradshaw. "It doesn't matter — we won't take them if they do drugs."

Grumman's corporate policy requires tests of current employees only in the following circumstances: possession; impaired job performance believed to result from drug abuse; and involvement in an OSHA-recordable accident that results in serious personal injury and/or significant property loss, where substance abuse is strongly suspected as a contributing factor.

Those with jobs requiring a regular physical must also be tested. Physicals are part of a person's skill certification for jobs such as drivers.

Current employees with apparent problems will be referred to the Employee Assistance Program office. This is intended as a consultation meeting — it is entirely possible that a problem unrelated to drugs is affecting a person's work.

The Employee Assistance counselors working with the Medical Department, will determine whether the employee should be tested for drug abuse. Those who test positive will be required to meet with the Employee Assistance Program counselor to devise an appropriate rehabilitation program.

Bear in mind that for present employees, the

Corporate policy on drug abuse is solely concerned with work performance. Bradshaw points out that the company is not attempting to police employees' after-hours behavior.

"That would be an invasion of privacy and would go against our grain," he says. "But where people's leisure behavior affects their work, the company has a right to be concerned."

The urine samples undergo a three-step testing process said to be 97 percent accurate. The three percent inaccuracy figure primarily includes damaged samples and those in which the chain-of-custody form is filled out improperly. (This form is attached to the sample and must be signed by every person who handles it — including the person being tested.) When either happens, the test must be done over.

The lab freezes and stores all samples that test positive, in case results are questioned. If so, the three-step test procedure is repeated on the person's frozen sample.

Brody says the tests are extremely accurate in identifying regular drug abusers. The concentration of a substance in a person's urine is directly related to the regularity of that person's use, he says.

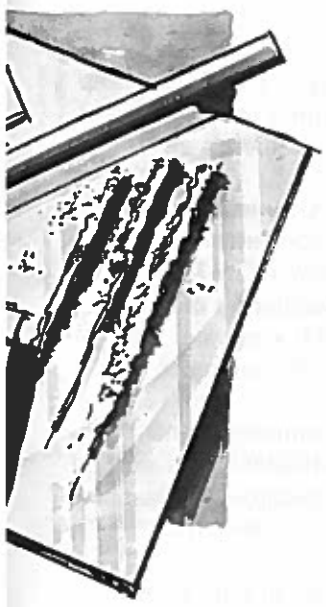
"If you're a regular user, over time the substance builds up in your body, and it takes longer for it to be expelled," explains Brody.

Passive inhalation of pot by a nonsmoker will only cause a person's urine to test positive for one or two hours afterward. So, being in the same room with a pot smoker won't skew the results of the urine test.

It is possible to get a positive result if one is taking an over-the-counter medication or a prescribed tranquilizer, such as Valium. All samples that initially test positive undergo additional screening designed to detect over-the-counter and prescription drugs. Those on prescription drugs can submit a copy of the doctor's prescription, so the lab knows.

Job applicants who fail the test may be reconsidered for employment and retesting after 90 days. If he or she passes, the applicant must agree in writing to submit to periodic retesting for six months hence, as a condition of employment.

Bradshaw feels enough safeguards have been placed on the program to prevent it from becoming a "witch hunt" among current Grummanites. "If anything, supervisors are too hesitant to make judgments about employees' drug problems," he says. "We want supervisors to confront the situation so employees in need can get treatment."



But why is the program targeting drugs, and not alcohol, too? Bradshaw points out that the company has been aggressively tackling alcohol abuse for decades — and has been highly successful at rehabilitating those affected. Supervisors have been trained to spot signs of alcoholism among their staffs, and people are encouraged to seek help, such as through Alcoholics Anonymous.

Drugs' outward effects are in some ways more subtle than alcohol's. And supervisors, who are usually older employees, may have little or no exposure to the signs of drug abuse. So it's apt to go undetected.

Ideally, Grummanites with a drug or an alcohol problem will seek help before it interferes with their work.

"With current employees, our total emphasis is on rehabilitation," says Bradshaw. "If the employee refuses to enroll in a rehabilitation program, that could very well lead to disciplinary action up to and including dismissal. Once you're ours, we feel we have a very heavy obligation to help you. But you've got to let us." ■

(Artwork by Pat Hughes)

Have A Problem? Grumman Offers Help

Grumman's policy on drug abuse is the same as it is for alcoholism — it is a medical problem that must be treated. Employee Assistance Program counselors confidentially help Grummanites in need get rehabilitation, then follow up on their progress.

Though alcohol and drugs head the list, the program offers help for a wide range of crises. In all, about 3,000 Grummanites use its services each year.

The program has its main office in Grumman headquarters, and branch offices at Calverton and Great River, Long Island; Glen Arm, Maryland; Milledgeville, Georgia; and St. Augustine and Stuart, Florida. At other Grumman sites, Personnel handles the function.

"Drug abuse affects all strata of society," says Employee Assistance Program Coordinator Tom Conley, "and the people we see represent all occupations." For example, at one time, cocaine was considered the drug of the affluent. That's not so anymore — it has gone down in price and become easier to get.

Polyaddiction — multiple drug abuse — is the number-one drug problem these days. The most commonly abused drugs are stimulants, such as speed and cocaine; downers, such as barbiturates; marijuana; and alcohol. The latter is still the number-one abused drug.

Conley estimates that 40 percent of cocaine abusers are also alcohol or pot abusers. "Cocaine is fast-acting, produces an intense high, and is of short duration," says Conley. "There's a rebound effect when it wears off. So, the coke user employs another drug, such as alcohol, to relieve that down feeling."

Polyaddiction doesn't just involve illicit substances. In older people, it can be booze and Valium. "Any combination of drugs can be lethal," says Conley. "Over time, people build up a tolerance, and become ever-more hooked — both psychologically and physically. A multiple substance abuser's withdrawal symptoms can be devastating and may require hospitalization."

The program's staff rarely comes in contact with the stereotypical abuser of heroin or other narcotics, since such addicts are usually unable to maintain steady employment. And only a few people that use nothing but marijuana have sought help from the program.

Despite its reputation as a mellow, nonthreatening substance, there is strong evidence that smoking pot causes lung damage and has long-term bad effects on motivation, concentration, attention span, and memory. Furthermore, pot has been shown to impair driving as much as alcohol does.

Conley says drug addiction is often reinforced by close friends and lifestyle. So, successful rehabilitation often hinges on getting addicts to change their lifestyles and avoid their old buddies. When that happens, he says, the Employee Assistance Program has an excellent success rate — on a par with other companies that have well-run programs.

"Sometimes, people come here because of pressure from their spouses or other family members," says Conley. "The people we can help the most are those who realize that drugs are controlling them."

"We do see people who have really reached bottom, who realize they have to get help before it's too late."

Working with the program is Grumman's Committee of Recovering Alcoholics (CARE). These Grummanites provide moral support to the substance abuser trying to quit. The committee has groups on Long Island, and in Stuart and Milledgeville.

Part of the program's mission is education. All new managers take a four-hour training course on substance abuse in the workplace. It also conducts regular after-hours courses for current managers and supervisors.

The program recently began a drug-awareness campaign, with posters going up throughout Grumman. It has already produced results. "Several people have come in here looking for help as a result," says Conley.

"If someone wants to get help, but doesn't want to come in to see us, that's O.K.," adds Conley. "The important thing is that the person recognizes the need and follows through with treatment from a community help agency."

If you need help, here are some numbers to call.

Grumman Employee Assistance Program office — Ext. (111) 5-HELP (53521). From outside the main phone system, dial (516) 575-HELP.

National cocaine hotline — 1-800-COCAINE.

For Long Islanders, the Nassau County Department of Drug and Alcohol Addiction's number is (516) 542-3925. The Suffolk County Department's number is (516) 348-2791. Elsewhere, check your local yellow pages under "agencies" and "counseling."

The numbers for Alcoholics Anonymous are as follows: Nassau, (516) 794-1144; Suffolk, (516) 654-1124. Off Long Island, your local A.A. chapter has a listing in the white pages, or you can call your area code directory assistance operator: 555-1212.

Aerialcat: A Safe Investment For Fast-Growing Small Town

MIDDLETOWN, Kentucky — Rapid growth in this once-rural town prompted the local fire department to invest in a new item of fire protection equipment: the 102-foot Aerialcat from Grumman Emergency Products.

Middletown lies about 15 miles southeast of Louisville. It's just at the edge of suburbia, where the shopping centers and housing developments give way to fields of Kentucky bluegrass. Every year, the locals say, Middletown gets more suburbanized. A gas station appears on another country corner, condominiums are built, and "Stop And Go" convenience stores pop up.

The gold leaf letters reading "Middletown, KY, engine company #52" are barely dry, as the fire department took delivery of this Aerialcat on January 15.

The Aerialcat is the department's first item of Grumman equipment. "A lot of the surrounding departments have pumpers made by Grumman," says Chief John Bosler. "They're pleased with Grumman, so we went to their plant in Roanoke, Virginia, to look at the Aerialcat, and invited Grumman to bid."

Within the 37-square-mile Middletown Fire Protection District live 50,000 people, and the district encompasses the several surrounding communities as well as the city of Middletown.

"We've got everything here from open cornfields to high-rises," says Bosler. The main firehouse, rebuilt three years ago, is on U.S. 66 next to a row of antique shops. A few miles north is a new, 14-story office building, housing Blue Cross/Blue Shield of Kentucky. American Motors is rumored to be eyeing a site in the district for a new plant.

Middletown has 10 career firefighters and about 50 volunteers. There is a one branch firehouse, and another is on the drawing board. The department has two ladder trucks, five engine companies (including the Aerialcat), two tankers, two field units, and one heavy-duty rescue unit.

Bosler has 21 years of service with the department, and remembers a less hectic time when the district's population was a mere 10,000. The fire crew then made perhaps 50 or 60 "runs" a year. Now, in an average year, it makes about 400.

"We don't have seven-, eight-, nine-alarm fires here," says Bosler. "We just don't have the closeness of buildings and old warehouses that you find in older cities."

But there are emergencies. There have been several fires at an asphalt factory. Several months ago, the roof of a garden apartment complex was badly burned. Workers ruptured a gas pipeline when installing an outdoor hot-tub at a nearby condominium.

Bosler estimates that the department goes on 50 or 60 runs during dry months to battle brush fires in the surrounding woods and fields. Furnace and chimney fires are common in the winter.

"And everybody's trying to heat their homes with alternative fuels, using Ben Franklin-type stoves," says Bosler. "They're hazardous if they're not installed and maintained properly."

The 95- and 102-foot Aerialcats are the industry leaders, and Grumman recently introduced a new 92-foot midmount version.

"We took the Aerialcat to Blue Cross on its first call," says Bosler. "It turned out to be minor. We require it because a lot of multifamily dwellings and high rises like the one at Blue Cross are starting to go up."

The Aerialcat will also come in handy for freak occurrences such as one that happened in 1984. A teenaged boy climbed up an electrical power tower, and Bosler's crew got him down. The boy lived despite absorbing 40,000 volts of electricity.

The department responds to a variety of other emergencies, though the local ambulance corps is separate. There are auto accidents and fires — two six-lane interstates bisect the district. Other emergencies result from downed power lines and storm damage from lightning and fallen trees.

"Our volunteers go on the same types of calls as the career people," says Bosler. All undergo rigorous training. For example, all must battle a deliberately-set, but controlled, house fire. After a bad fire, the owner of this house donated it to the fire department. It was then moved to a secluded location for staged exercises.

"With the area growing so fast, we're constantly recruiting volunteers," says Bosler. "And they're more difficult to find — especially among the 'yuppies.'

Bosler frequently lectures to civic organizations on firefighting, using a 25-minute slide show. It opens with a slide of the "Welcome To Middletown" sign set to John Cougar Mellencamp's song, "Small Town." It's pretty slick salesmanship.

"We now have to spend a lot more time beating our own drum," he says. "People grumble about paying taxes, and they don't really give fire protection much thought — until there's an emergency."

In a roundabout way, the Grumman Aerialcat will give a boost to the local economy. Middletown has applied for a review of its ISO (International Organization for Standards) classification. Classifications by the ISO, a private regulatory group, are used by the insurance industry to determine rates.

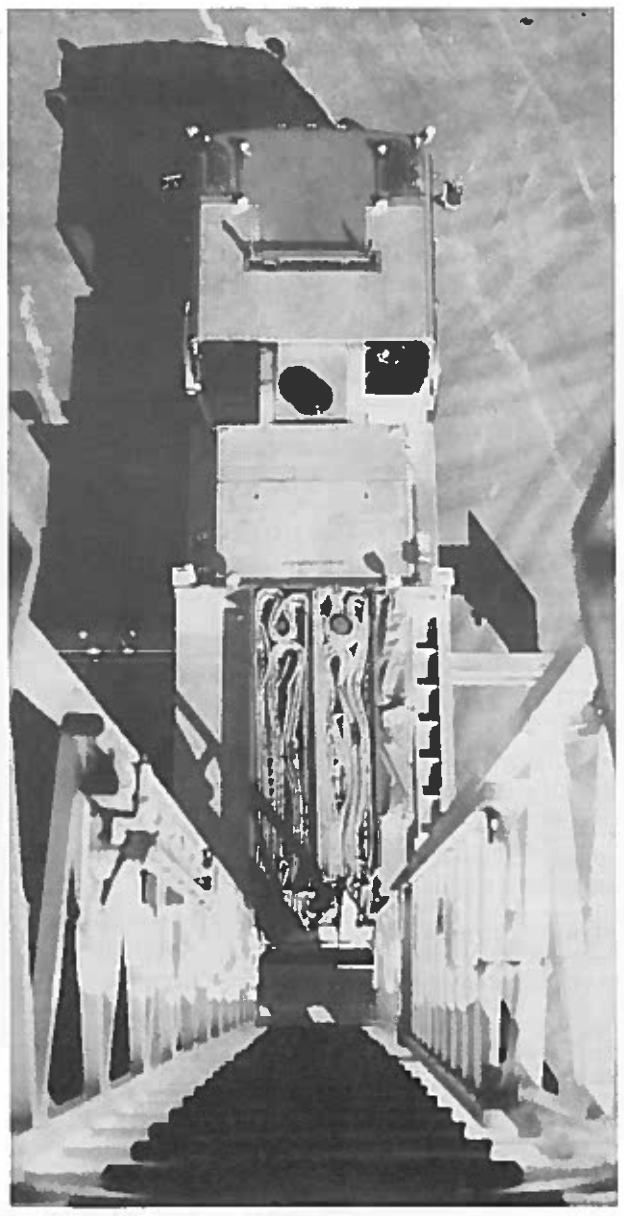
The class rating affects commercial and homeowner insurance rates. Middletown is now a Class 3 fire department. If it becomes a Class 2 fire department, property owners can expect a reduction in their premiums.

And the change will be due in part to owning an Aerialcat."We had to have a new front-line, 100-foot aerial and a reserve aerial as a backup," says Bosler. "Other factors include the age of the equipment, and the availability of water supplies."

"Ultimately, that affects business in the area, and the value of commercial property," says Bosler. "Businesses would be more keen on locating here, since their insurance would be less and they'd be getting better fire protection."

Bosler says the firefighter's job has changed a lot since he's been on the job. "The leather-lunged, smoke-eating fireman is a thing of the past," he says. More emphasis is placed on education and fire protection, for example.

"Having the right equipment makes the firefighter's job safer," says Bosler, "and helps them provide better protection to the town." ■



View From The Top. *This photo was taken while the 102-foot Aerialcat's ladder was extended. For the Middletown, Kentucky, Fire Department, the Aerialcat is an investment in safety -- many more high rise buildings are going up in this fast-growing area.*

Middletown's Bravest. *In a training exercise, firefighters battle a deliberately-set, but controlled, blaze. In the inset, a fireman elevates the aerial ladder for a test run soon after the new Aerialcat was delivered.*

Service Milestones

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Muriel V. Ball, Finance, Bethpage, Aircraft
Robert C. Specht, Mech. Sys. Prod. Support, Calverton, Aircraft
Stanley P. Zaluska, Prod. Plt. Mgmt., Bethpage, Aircraft

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Julius A. Brescia, Mech. Sub Assemblies, Great River, Electronics
Saul Ferdman, V. P. Marketing, Bethpage, Allied
Louis Ferraro, Mech. Detail & Finish, Great River, Electronics
Raymond J. Frost, ILS Prog. Mgmt., Bethpage, Aircraft
Robert E. Greif, Fuse Fwd. Sub. & Major, Bethpage, Aircraft
Alfred A. Grillo, Maint. Bethpage, Services
John J. Hughes Jr., Prog. Mgmt. A-6, Melville, Aircraft
Charles M. Kinnison, Camera Graphics, Bethpage, Services
Ralph J. Longo, Router, Bethpage, Aircraft
Mario S. Martire, Flt. Ops., Bethpage, Aircraft
Michael P. Mustapich, ILS Supply Ops. Mgmt., Bethpage, Aircraft
Norman T. Ritter, Marketing, Bethpage, Aircraft
Mary E. Shannon, Real Estate Mgmt., Bethpage, Aircraft
Gardner H. Sidway, Resource Plan. & Analysis, Stuart, Aircraft
Robert F. White, Aero Test, Bethpage, Aircraft
James M. Wider, Assembly Methods, Bethpage, Aircraft

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Chester G. Baumgartner, Employee Serv., Bethpage, Services
Charles V. Brown Jr., Sub-Assembly Major, Bethpage, Aircraft
Ronald M. Busch, Invent. Mgmt., Great River, Electronics
Joseph F. Garraffa, Prog. Mgmt.—Space, Melville, Melbourne
Robert J. Hrubes, Maint. Great River, Services
Carl E. Kupke, Assembly Methods & Plan., Calverton, Aircraft
Alden L. Melanson, Mat'l. Review, Bethpage, Aircraft
Walter S. Mystkowski, Bonding Methods, Bethpage, Aircraft
Carl A. Paladino, Sr. V.P. Finance, Bethpage, Aircraft
Daniel J. Purcell, Est. Mgmt., Bethpage, Services
Anthony R. Ruffini, Flt. Avionics, Calverton, Aircraft
Joseph Theobald, Gov't. Mat'l. Cont., Bethpage, Aircraft
Otto A. Vollmerhause, Jig Details & Sub-Assembly, Bethpage, Aircraft

25

Gordon W. Bell, ILS Tech. Illus., Bethpage, Aircraft
Joseph A. Beltrami, Inst. Mgmt., Bethpage, Aircraft
Anthony Drago, Qual. Admin. Serv., Milledgeville, Aircraft
Louis C. Ferriole, Model Shop, Bethpage, Aircraft

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Vintage bird retires to new nest

Sooner or later it's time for reliable old warbirds to turn their jobs over to younger, more agile wings. That time recently came for "Outrider One" — the Navy's last Grumman-built ES-2D Tracker.

For 20 years, Outrider One was flown by the Navy's Pacific Missile Range Facility (PMRF) out of Barking Sands, Hawaii. The facility depended on it for radar surveillance, range clearance operations and electronic warfare support during range activities. Outrider One's job was taken over by a new Beechcraft B200T, and it went to storage at the Davis Monthan Air Force Base "boneyard" in Arizona.

Beginning in 1953, Grumman built some 1,200 S-2 (formerly S2F) Trackers for the United States Navy as antisubmarine warfare aircraft. The ES-2D, an electronically modified S-2, isn't a hot rod like the F-14, nor is it an electronic whiz kid like the EA-6B. Still, it was perfect for supporting weapon systems tests, training, and naval warfare tactics development at Barking Sands.

"The S-2 lasted so long here because it filled our mission requirements," says Lt. Cdr. Rick Daley. "It was very difficult to find a replacement aircraft for it." Daley, PMRF range support officer, is the last S-2 qualified pilot in the Navy.

"I'll miss Outrider One, but I don't believe for a minute that she'll stay in the boneyard. She's too useful and too well built not to have another career ahead, perhaps on a foreign shore tour," says Daley.

It might. Over 100 Trackers are still in daily service. They are the backbone of the antisubmarine patrol mission for Argentina, Brazil, Korea, Peru, Taiwan, Thailand, Turkey, Uruguay and Venezuela. Canada flies about 30 that were built by DeHavilland Canada under license from Grumman. And California uses some to fight forest fires, as does France.

According to Joe Port of Grumman International, most of these planes have 30 to 40 years of life left in their airframes. "The Canadians ran a fatigue test program on an S-2," says Port. "At 67,000 hours it developed a crack. Rather than fix it, they decided to continue the test until they had a major failure. They didn't have a catastrophic failure until 127,500 hours. Most of the Trackers being flown in South America only have 6,000 to 9,000 flying hours on them."

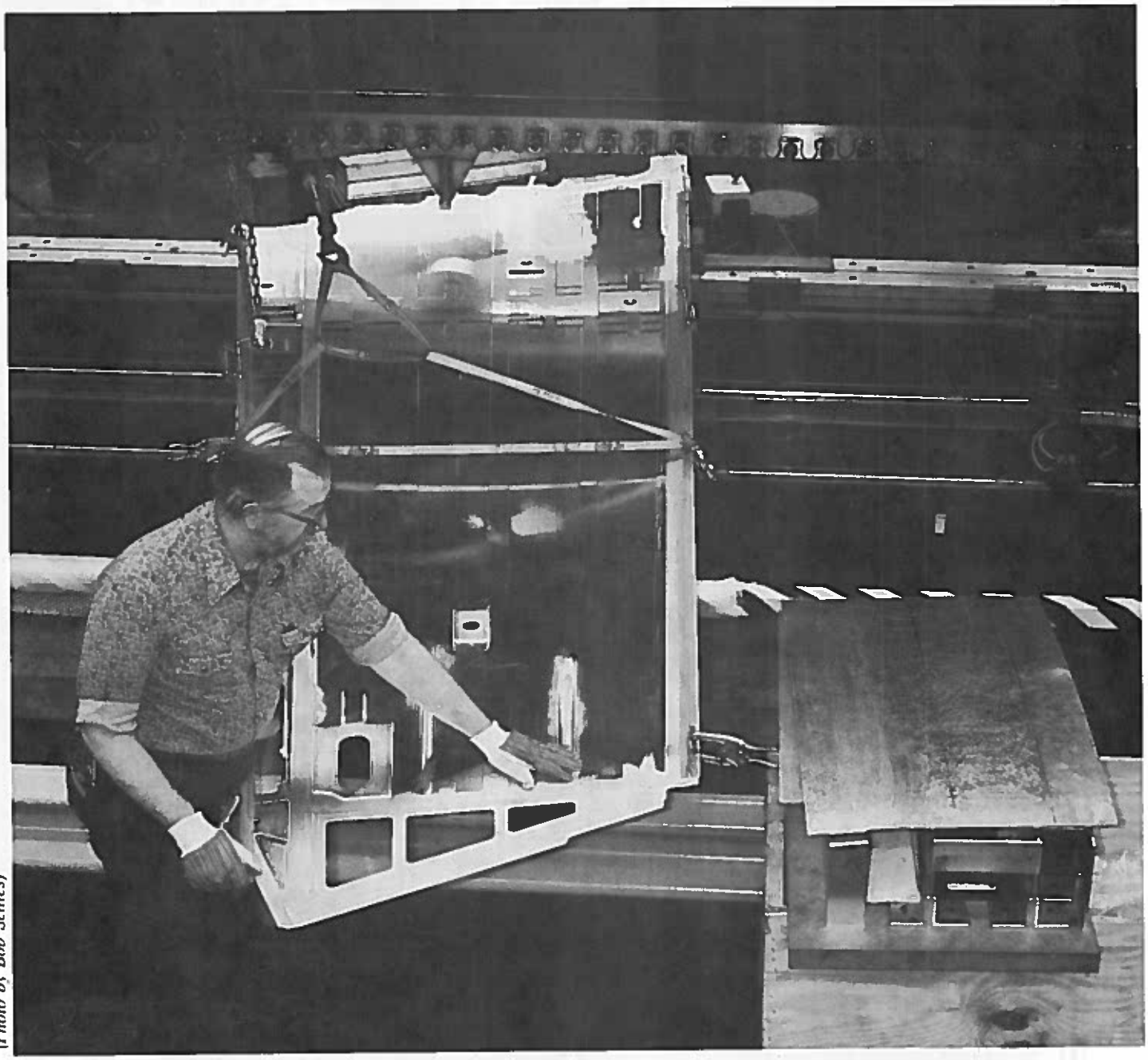
Grumman is trying to capitalize on that long life. Grumman International has begun to market an updating program that would solve two of the biggest problems faced by current S-2 owners.

For one thing, the avionics onboard most of the Trackers is mid '50's vintage. Also, their old piston engines require special, high-octane aviation gas used by few aircraft these days.

Grumman would outfit the Trackers with advanced avionics and Garrett turboprop engines, which burn standard jet fuel. It would also rewire and refurbish the planes.

And who knows? The upgrade program might even give new life to Outrider One and the other 29 S-2's waiting at the boneyard for a comeback. ■

GrummanWorld
May 23, 1986

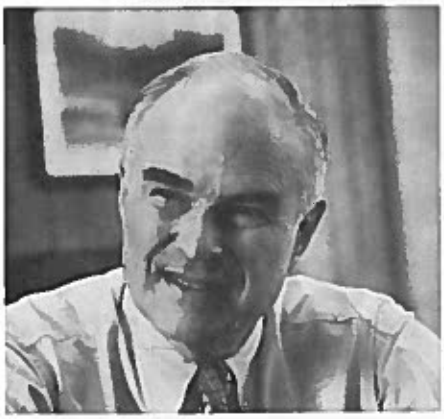


(Photo by Bob Settles)

Bending Under Pressure

Grummanite Harold Kennedy of Building 3, Bethpage, can apply a lot of pressure on the job using this powerful press brake. Exerting tons of controlled force, this machine puts the first curve on an EA-6B wing cover. At this stage, the wing cover can't be hammered into shape, because the metal is about one inch thick at the point the initial brake is made. After Kennedy is finished, the Prowler wing cover is ready to be hammered into the final airfoil shape.

A Letter From The Chairman



A few years back, I had a friend who was working with me in the plastics business. He sold polyethylene bags for food packaging. Business was going well, and he was trying to expand by selling bags to a dog food manufacturer. As liners for the heavy paper outer bags, the plastic formed a window on the package. Well, with static electricity, the dust from the dog food would cling to the plastic. It looked terrible — even for dog food.

My friend asked the research department to add an anti-static ingredient to the plastic, then announced the brand-new "S-100" type of polyethylene. It was so successful, he asked the lab to tailor the formula to other customers' requirements. There was S-127, S-456 — each with a certain texture, appearance or performance characteristic. I think he got his "S" numbers up to about a thousand.

Our plan to sell airborne early warning capability to the United Kingdom made me think about my friend with his plastic bags. Giving customers what they want is always good business — no matter what business you're in.

The United Kingdom has invested a great deal of money in the development of airborne early warning (AEW) capability for its Nimrod aircraft — but the program has encountered problems and the plane is now four years late in entering service. Grumman has offered several options. One is to sell the basic E-2C Hawkeye to the United Kingdom; another is to sell an advanced E-2 that has been adapted for refueling capability; a third is to adapt the Hawkeye's radome and other AEW equipment to the Nimrod airframe.

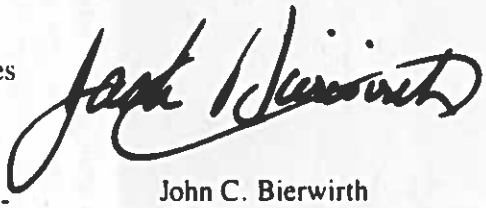
We believe that the third proposal is the one the British will find the most attractive. It would take advantage of the investment already made in the Nimrod, and it would still be a British aircraft.

Other U.S. aerospace companies have sent their own proposals. It is difficult to predict which — if any — of these options the British will select. But what I find so encouraging here is Grumman's increasing ability to respond and adapt to a customer's needs.

I think that there is a tendency for aerospace manufacturers to look at a customer's problem and then offer their product to solve it — without looking at emotional or political considerations. There's an element of arrogance in that rigid approach. It's a mistake that Grumman is not making in the United Kingdom or elsewhere these days.

In the past few years, we've seen other examples of this flexible, creative thinking: Grumman HU-16 amphibian aircraft converted to luxury passenger transports; electronics products adapted to the needs of the television industry. Even catering trucks to bring fried chicken to factory workers in China — Kurbmasters custom tailored to the job by Grumman Olson.

There is a lot of competition for practically any job we pursue. But by listening carefully to a customer's needs, we can improve the odds. We can invent new possibilities for ourselves and for our products — and we're getting better at it all the time.



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